

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2004/010091

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02P6/00, H02P5/41

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H02P B60L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 650 706 A (KAWABATA YASUTOMO ET AL) 22 July 1997 (1997-07-22) abstract column 1, line 11 - line 38 column 2, line 43 - line 47 column 2, line 51 - line 55 column 4, line 7 - line 16 column 5, line 5 - line 43 column 6, line 16 - line 23 claim 4 figures 1-3	1
A	----- -/--	2-7

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

20 January 2005

Date of mailing of the international search report

27/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Roider, A

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/010091

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 26, 1 July 2002 (2002-07-01) & JP 2001 268970 A (SANYO ELECTRIC CO LTD; KUMAGAYA SEIMITSU KK), 28 September 2001 (2001-09-28) abstract	1
A	----- PATENT ABSTRACTS OF JAPAN vol. 2003, no. 11, 5 November 2003 (2003-11-05) & JP 2003 204693 A (FORD GLOBAL TECHNOL INC), 18 July 2003 (2003-07-18) abstract	1
A	----- PATENT ABSTRACTS OF JAPAN vol. 0162, no. 27 (E-1207), 26 May 1992 (1992-05-26) & JP 04 042764 A (NIPPON CHEMICON CORP), 13 February 1992 (1992-02-13) abstract	1
A	----- PATENT ABSTRACTS OF JAPAN vol. 2000, no. 23, 10 February 2001 (2001-02-10) & JP 2001 157304 A (DENSO CORP), 8 June 2001 (2001-06-08) cited in the application abstract -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/010091

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5650706	A	22-07-1997	JP 2943657 B2 JP 8103093 A	30-08-1999 16-04-1996
JP 2001268970	A	28-09-2001	NONE	
JP 2003204693	A	18-07-2003	US 6427794 B1 CA 2403290 A1 DE 10243217 A1 US 2003051929 A1	06-08-2002 17-03-2003 08-05-2003 20-03-2003
JP 04042764	A	13-02-1992	NONE	
JP 2001157304	A	08-06-2001	NONE	